Phase I Archaeological Investigation for the Proposed SR 72/SR 1 Diverging Diamond Interchange New Castle County, Delaware

ARCHAEOLOGICAL SURVEY REPORT FORM

Prepared For:
Delaware Department of Transportation
800 Bay Road
Dover, Delaware 19901

Prepared By:

Rummel, Klepper & Kahl, LLP
81 Mosher Street
Baltimore, MD 21217

July 2015

Delaware Division of Historical and Cultural Affairs
State Historic Preservation Office
21 The Green
Dover, DE 19901
302-736-7400
302-739-5660 (fax)

Archaeological Survey Report Form

(For use when NO archaeological sites were identified; see *Guidelines and Instructions*.)

1. Report title: Phase I Archaeological Investigation for the Proposed SR72/SR1 Diverging Diamond Interchange, New Castle County, Delaware

2. Date: 6/12/2015

3. Author(s): Jason Shellenhamer

4. Consulting firm name and address: Rummel, Klepper & Kahl, LLP, 81 Mosher Street, Baltimore, MD 21217

5. Client agency: Delaware Department of Transportation

LOCATION

6. County (check as many as apply): ☒ **New Castle** ☐ **Kent** ☐ **Sussex**

7. Nearest town(s): Wrangle Hill

8. Physiographic and geographic zone(s): Mid-Drainage Upper Coastal Plain/ Upper Peninsula

PROJECT DESCRIPTION

9. Dates of fieldwork: June 1-4, 2015

10. Size of area covered: **unit used:** ☒ **acres** ☐ **hectares**
project area: 2.41 **surveyed area**: 2.41

11. Project description (describe location and nature of project): The project consists of improvements to the interchange at SR 72 and SR 1 utilizing a divering diamond interchange (DDI). The proposed changes are more compact than a cloverleaf or loop ramp interchange and will utilize the existing bridge structure.The new design will improve traffic flow and provide congenstion relief and safety. The majority of the Area of Potential Effect (APE) will occur in

the exisiting right of way which has previously been surveyed and does not require further archaeological testing. However, the APE will also extend into four parcels on the south side of SR 72 which have not been subjected to archaeological testing. On behalf of Delaware Department of Transportation, Rummel, Klepper & and Kahl, LLP completed a Phase I archaeological investigation of the four previously unsurveyed parcels to identify any archaeological resources. At the time of the Phase I survey, the majority of the survey area was in manicured lawns located southwest of the intersection of SR 72 and McCoy Road. A portion of the eastern section of the survey area lies in a wooded parcel located west of the southbound on-ramp to SR 1. The wooded parcel contained heavy understory and appears to be a dumping ground for local residents. The survey area is bound on the north by SR 72, west by McCoy Road, east by SR 1, and south by manicured lawns owned by a private land owner.

RESEARCH DESIGN

12. **Survey objectives:** The goal of the survey was to determine the presence or absence of any archaeological resources within the defined APE. A review of historic maps of the area indicated the APE contained a high potential for historic resources. Several previously identified prehistoric sites are located in the area, and the proximity of the APE to a drainage of Dragon Creek suggests the APE also contained a high potential for prehistoric resources.

13. **Survey methods (describe both field and background research methods):** Background research was conducted on the project area prior to survey. This included a review of cultural resource survey maps maintained by DESHPO in order to review previous archaeologica surveys within the vicinity of the APE, locate previously identified archaeological sites in or near the project area as well as an examination of historic maps to assess the potential for cultural resources. A pedesitran survey of the project area was conducted prior to testing. No visible disturbances or potential features were identified. A total of 73 shovel tests were excavated across the survey area at 15 meter (50-foot) intervals. Excavated shovel tests measured 40 centimeters (16 inches) diameter and extended a minimum of 10 centimeters (four inches) into sterile subsoil. All soils were screened through 1/4-inch mesh.

14. **Expected site types for this area (cite earlier surveys & known nearby resources, information from historic maps or research):** Given the background research conducted, the survey area was considered to have a high potential for both prehistoric and historic resources. The survey area is located along SR 72 which lies adjacent to Wrangle Hill Road, a historic road trace that has existed in the area since at least the eighteenth century. A review of nineteenth century maps of the area indicates the presence of several named farms in close proximity to the survey area, including the farm of T. Bellville, whose house is depicted just south of the APE. In addition, the study area is located on a landform in close proximity to Silver Run, a tributary of Dragon Creek, and is considered to contain moderate potential for the presence of prehistoric archaeological resources. Several small prehistoric sites were identified in the vicinity of Dragon Creek and Wrangle Hill during

previous archaeological surveys, supporting the potential for similar resources in this area (Bedell et al. 2012).

RESULTS and RECOMMENDATIONS

15. **Fieldwork (describe survey; add maps as needed):** A total of 73 shovel tests were excavated at 15-meter (50-foot) intervals across the survey area. The survey area was divided into two segments. Survey Area 1 was located in the manicured lawns located south of SR 72. Survey Area 2 was situtated in the wood lot located on the east end of the APE, adjacent to the on-ramp to SR 1. Historic and modern artifacts were identified in three shovel tests and radials, placed at 7.5-meter (25-foot) intervals, were also excavated. The stratigraphy generally consisted of plowzone overlying sterile subsoil. See attachment F

16. **Artifacts (describe any found; identify location; explain why determined not to be a site):** A small assortment of historic artifacts were recovered from Survey Area 1 in Shovel Test A-1. They included a piece of whiteware, a sherd of redware and a piece of clear modern bottle glass. Other modern material was also present in the STP, including a piece of tin foil and some plastic. Both the modern and historic artifacts were isolated to the plowzone (see attachment C). Radial shovel tests produced a single piece of brick, also located within the plowzone. The small collection was considered a field scatter likely associated with trash discard along McCoy Road. The remainder of the artifacts recovered from the APE were modern and associated with disturbed contexts and modern dumping episodes. They included a wire nail in Survey Area 1 STP C-10, modern bottle glass in Survey Area 2 STPs A-2 and A-10, and a piece of automobile window glass in Survey Area 2, STP A-13. All the modern material was recovered in the vicinity of several trash dumps located within the tree line.

17. **Recommendations:** No archaeological resources were identified and testing confirmed that the western section of the the survey area was previously an agricultural field prior to the construction of the existant houses in the 1970s and 1980s. Besides the small field scatter located within the plowzone along McCoy Road, no intact cultural resources were identified. The eastern end of the survey area was also formerly an agicultural field prior to the construction of SR 1. Since the road's construction, the area has become a location of local dumping and trash discard. Besides a collection of modern refuse, no cultural resources were identified. Thus no new archaeological sites were identifed and no additional archaeological work is recommended within the APE.

ATTACHMENTS

18. **Attachments checklist:**
    - a. ☒ **bibliography**
    - b. ☒ **location map (USGS or equivalent)**
    - c. ☒ **detailed map(s) (project plans and/or field survey map)**
    - d. ☒ **historic map(s) (list)** Rae & Price 1849; Beers 1859

e. ☒ **photographs of general project/surveyed area**
f. ☒ **table of collection units and/or excavated tests**
g. ☒ **soils map(s)**

Others (list, if any): h. discarded artifacts

a. Bibliography

Ames, David L., Mary Helen Callahan, Bernard L. Herman, and Rebecca J. Siders
1989 *Delaware Comprehensive Historic Preservation Plan*. Newark, DE: Center for Historic Architecture and Engineering, University of Delaware.

Bedell, John, Charles LeeDecker, Patti Kuhn, and Jason Shellenhamer
2012 *Phase IA Archaeological Investigations State Route 1 Widening New Castle County, Delaware.* Prepared for Delaware Department of Transportation by The Louis Berger Group, Inc., Washington, D.C.

Beers, D.G.
1868 *Atlas of the State of Delaware*. Pomeroy & Beers, Philadelphia.

Custer, Jay F.
1986 A Management Plan for Delaware's Prehistoric Cultural Resources. University of Delaware Center for Archaeological Research, Monograph No.2. Newark, DE.

Custer, Jay F., Douglas Kellogg, Barbara Hsiao-Silber, and Robert Varisco
1995 *Final Archaeological Investigations at the Wrangle Hill Prehistoric Site (7NC-G-105), State Route 1 Corridor, Chesapeake and Delaware Canal Section, New Castle County, Delaware.* Delaware Department of Transportation Archaeology Series No. 136.

DeCunzo, Lu Ann
2004 A Historical Archaeology of Delaware. University of Tennessee Press, Knoxville, TN.

DeCunzo, Lu Ann, and Wade P. Catts
1990 Management Plan for Delaware's Historical Archaeological Resources. University of Delaware Center for Archaeological Research, Newark, DE.

Delaware Cultural & Historical Resource Information System (CHRIS)
2015 Aerial Photography with currently available CRS data. Electronic document, http://www.chris.delaware.gov, accessed June 2015.

Doms, Keith, Angela Hoseth, Barbara Hsiao Silber, David J. Grettler, Susan M. Gentile, and Frank D. Faulls
1995 *Archaeological Investigations of the Scott's Run Project Area, the Route 72/13 Intersection Improvements Project Area, and the Woodville Grave Site (7NC-E-98A), State Route 1 Corridor, New Castle County, Delaware.* Prepared for Delaware Department of Transportation by the Center for Archaeological Research, University of Delaware, Newark, Delaware.

Groot, J.J. and Jordan, R.R.
1999 The Pliocene and Quaternary Deposits of Delaware; Delaware Geological Survey Report of Investigations No. 58

Hodny, Jay, David C. Bachman, and Jay F. Custer
1989 *Phase I Archaeological Survey of the Chesapeake and Delaware Canal Section, Odessa Segment, of the U.S. Route 13 Corridor, New Castle County, Delaware.* Prepared for Delaware Department of Transportation by the Center for Archaeological Research, University of Delaware, Newark, Delaware.

Kellogg, Douglas C., Robert Varisco, David J. Grettler, and Jay F. Custer
1994 *Phase II Archaeological Discoveries in the Chesapeake and Delaware Canal Section of the State Route 1 Corridor, New Castle County, Delaware*. Prepared for Delaware Department of Transportation by the Center for Archaeological Research, University of Delaware, Newark, Delaware.

Matthews, Earle D, and Oscar L. Lavoie
1970 *Soil Survey of New Castel County, Delaware.* Prepared by the United States Department of Agriculture, Soil Conservation Service, in cooperation with Delaware Agricultural Experimental station. United States Government Printing Office, Washington, D.C.

Mellin, Wayne L. and Kenneth Baumgardt
1990 *A Phase I Archeological Survey of the Right-of-Way of a Proposed Water Line at Wrangle Hill Road and U.S. Route 13, St Georges, New Castle County, Delaware.* Prepared for ICI Americas, Inc. by MAAR Associates, Inc., Newark, Delaware.

Ramsey, Kelvin W.
2005 *Geological Map of New Castle County, Delaware*. Delaware Geological Survey, University of Delaware. Electronic document, http://www.dgs.udel.edu/sites/dgs.udel.edu/files/publications/geomap13.pdf, accessed, June 2015.

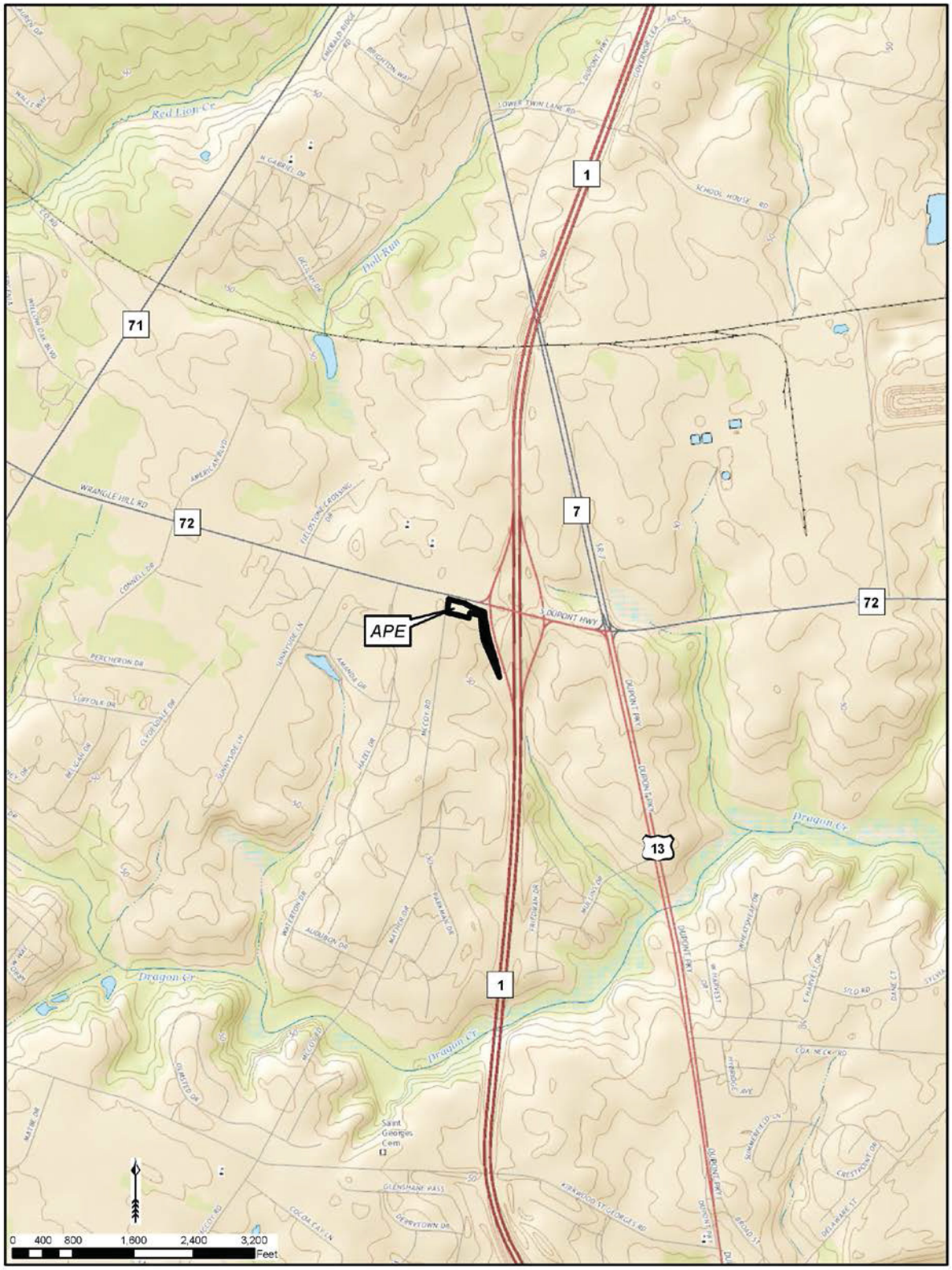
Rea, Samuel M. and Jacob Price
1849 *Map of New Castle County, Delaware*. On file at the Delaware Public Archives, Dover, Delaware.

Rohm, Mackenzie Caldwell, Laurie Paonessa, and Brian Crane
2012 *Phase I Archaeological Survey of the Mid-County DMV Location at US 13 and SR 72, New Castle County, Delaware*. Prepared for Delaware Department of Transportation by Versar, Inc., Springfield, Virginia.

United States Department of Agriculture (USDA),
2015 Web Soil Survey (WSS) Electronic document, http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm, accessed June 2015.

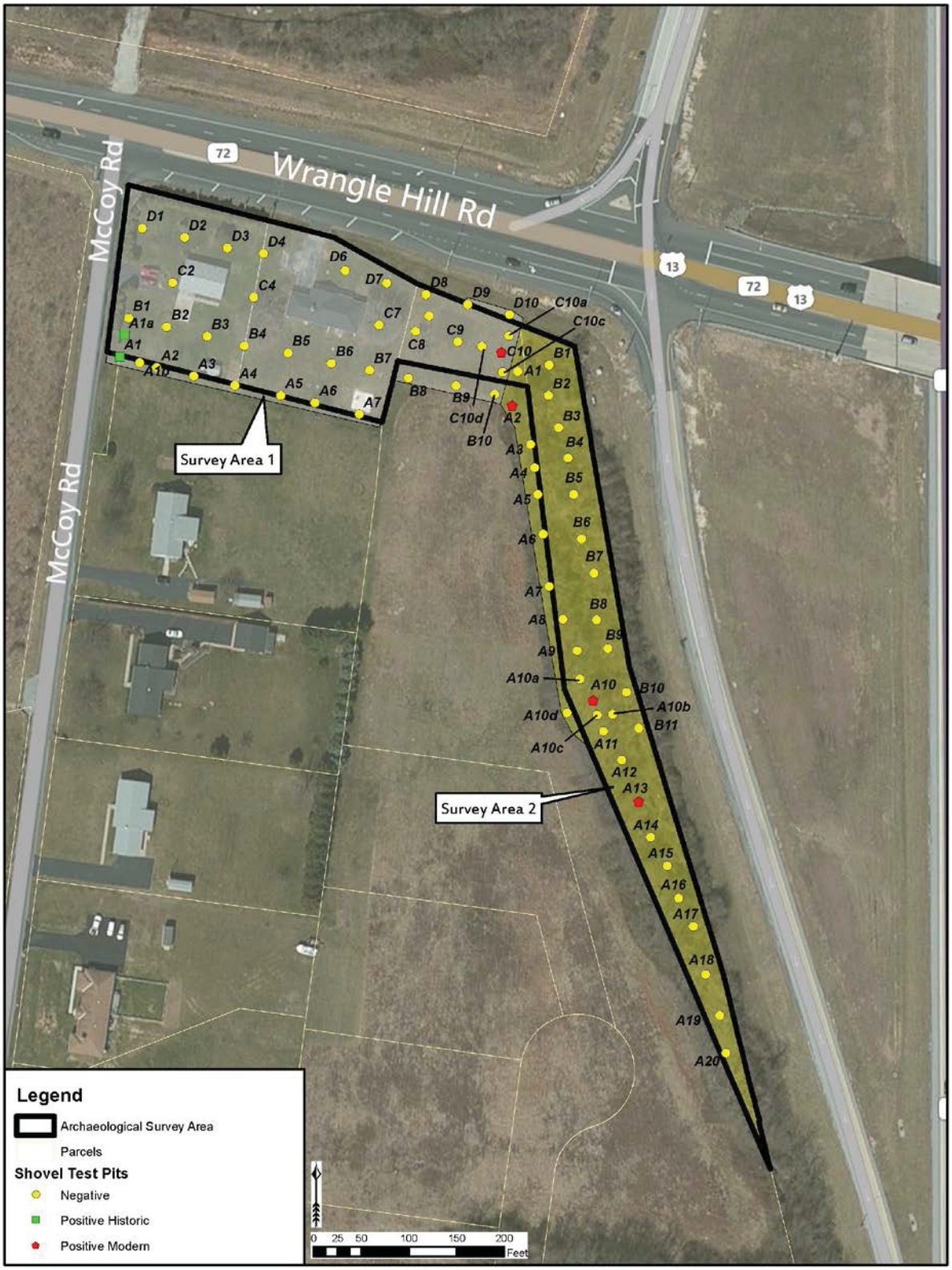
United States Geological Survey
2014 Saint Georges, Delaware 7.5 Minute Quadrangle. United States Geological Survey, Reston, Virginia.

b. Location Map



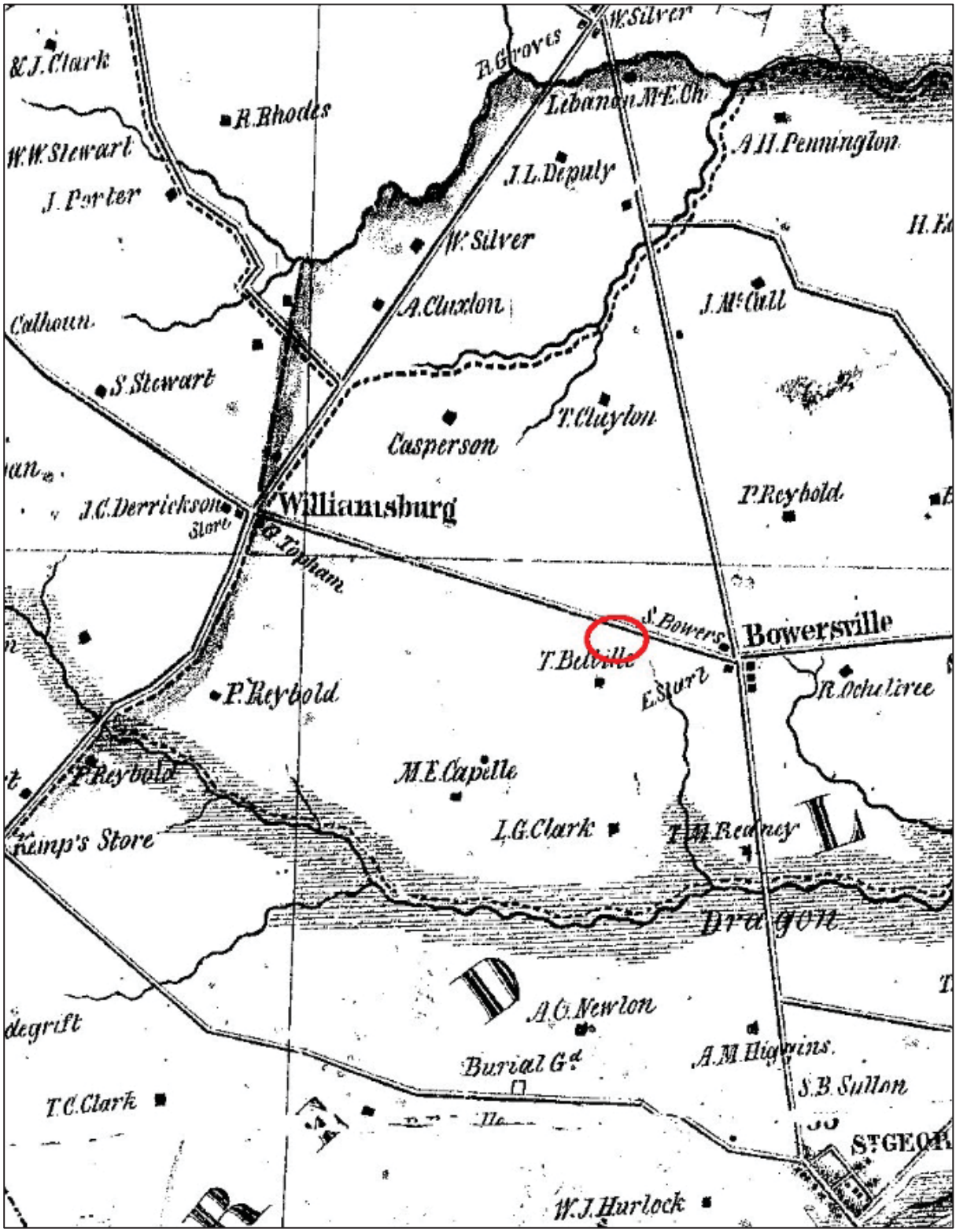
Project Location on the 2014 Saint Georges, Delware 7.5" USGS Topographic Quadrangle Map

c. Field Survey Map

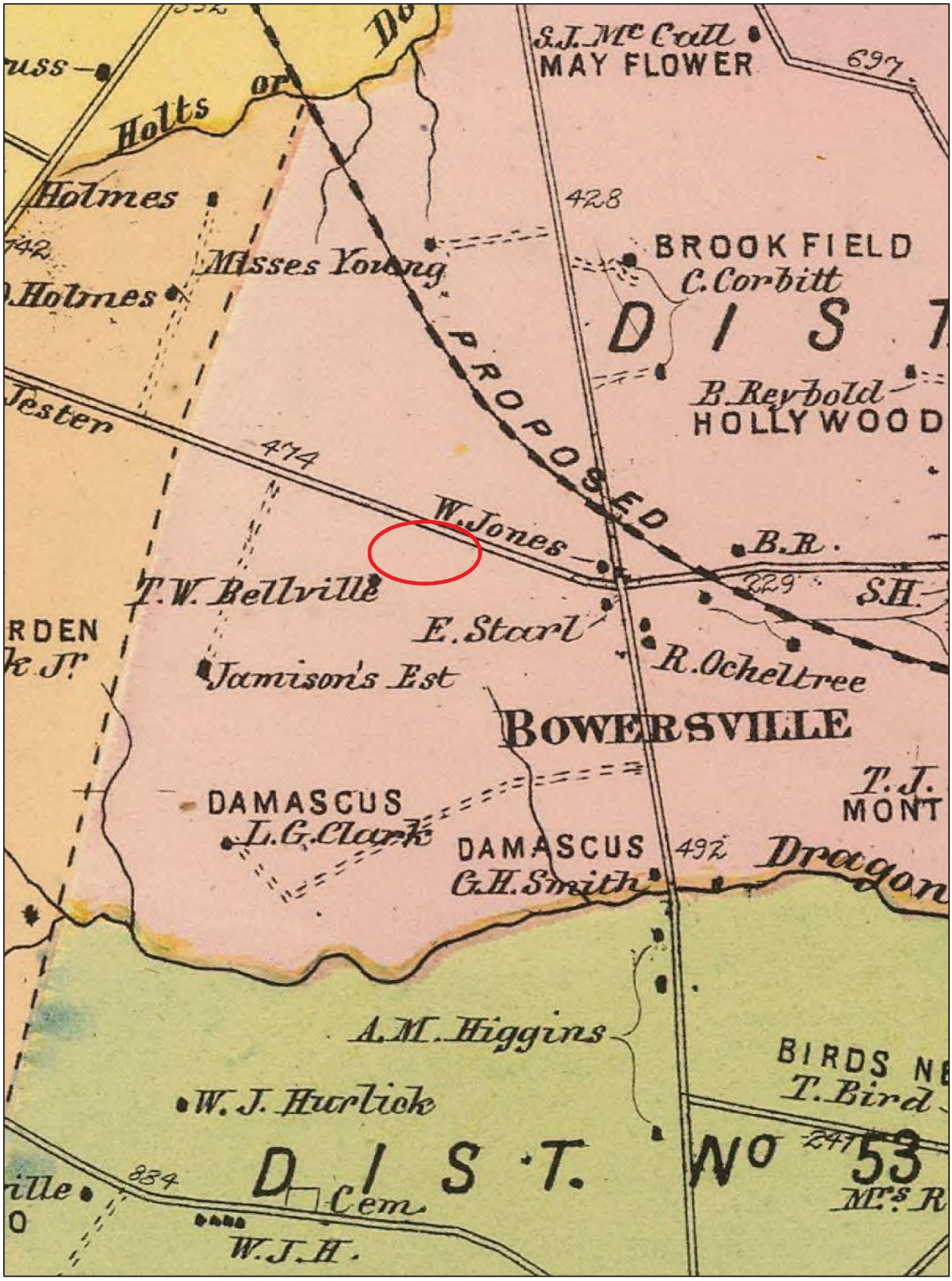


Project Area Map Showing Shovel Test Locations (2013 Aerial)

d. Historic Maps



***Map of New Castle County, Delaware*. Project and survey area highlighted in red (Rae and Price 1849**



Atlas of the State of Delaware. **Project and Survey area highlighted in red (Beers 1859)**

e. Photographs of the Project Area

Photograph of the Western Edge of Survey Area 1, facing south

Photograph of Survey Area 1, facing east

Photograph of Survey Area 1, facing east.

Photograph of Survey Area 1, facing south

Photograph of Survey Area 2, facing north

Photograph of Discarded Refuse Found within Survey Area 2, facing south.

f. Testing Results

Area	STP	Stratum	Opening (cm)	Closing (cm)	Munsell	Texture	Comments
1	A-1	I	0	28	10YR 4/4 dark yellowish brown	silt loam	1 redware, 1 whiteware, 1 clear bottle glass (aluminum-not retained)
1	A-1	II	28	43	10YR 5/6 yellowish brown	silt loam	
1	A-1	III	43	64	10YR 5/8 brownish yellow	silt loam	
1	A-2	I	0	25	10YR 4/4 dark yellowish brown	silt loam	
1	A-2	II	25	43	10YR 5/8 brownish yellow	silt loam	
1	A-3	I	0	27	10YR 4/4 dark yellowish brown	silt loam	
1	A-3	II	27	36	10YR 5/6 yellowish brown	silt loam	
1	A-4	I	0	30	10YR 4/4 dark yellowish brown	silt loam	coal, Tyvek, aluminum - observed, not retained
1	A-4	II	30	40	10YR 5/6 yellowish brown	silt loam	
1	A-5	I	0	25	10YR 4/4 dark yellowish brown	silt loam	
1	A-5	II	25	36	10YR 5/6 yellowish brown	silt loam	
1	A-6	I	0	27	10YR 4/4 dark yellowish brown	silt loam	
1	A-6	II	27	37	10YR 5/6 yellowish brown	silt loam	
1	A-7	I	0	13	10YR 4/4 dark yellowish brown	silt loam	
1	A-7	II	13	33	10YR 5/6 yellowish brown	silt loam	
1	D-7	I	0	47	10YR 4/4 dark yellowish brown	silt loam	

Area	STP	Stratum	Opening (cm)	Closing (cm)	Munsell	Texture	Comments
1	D-7	II	47	60	10YR 5/6 yellowish brown	silt loam	
1	A-1.a	I	0	16	10YR 4/3 brown	silt loam	
1	A-1.a	II	16	30	10YR 4/6 dark yellowish brown	silt loam	
1	A-1.a	III	30	40	10YR 5/6 yellowish brown	silty clay	
1	A-1.b	I	0	30	10YR 4/3 brown	silt loam	
1	A-1.b	II	30	42	10YR 5/8 brownish yellow	silt loam	
1	B-1	I	0	16	10YR 4/3 brown	sandy clay loam	
1	B-1	II	16	30	10YR 4/6 dark yellowish brown	fine sandy loam	
1	B-1	III	30	40	10YR 5/8 brownish yellow	silty clay loam	
1	B-2	I	0	16	10YR 4/3 brown	sandy clay loam	
1	B-2	II	16	30	10YR 5/6 yellowish brown	sandy clay loam	
1	B-2	III	30	48	10YR 5/6 yellowish brown	fine sandy clay	
1	B-3	I	0	20	10YR 4/3 brown	sandy clay loam	
1	B-3	II	20	30	10YR 5/6 yellowish brown	sandy clay loam	
1	B-3	III	30	50	10YR 5/6 yellowish brown	fine sandy clay	
1	B-4	I	0	30	10YR 4/3 brown	sandy clay loam	
1	B-4	II	30	38	10YR 4/6 dark yellowish brown	silty clay loam	terminated at sub interface due to root impasse

Area	STP	Stratum	Opening (cm)	Closing (cm)	Munsell	Texture	Comments
1	B-5	I	0	20	10YR 4/3 brown	silty clay loam	
1	B-5	II	20	40	10YR 5/6 yellowish brown	sandy clay	
1	B-6	I	0	30	10YR 4/3 brown	silty clay loam	
1	B-6	II	30	43	10YR 5/6 yellowish brown	sandy clay	
1	B-7	I	0	17	10YR 4/3 brown	silty clay loam	
1	B-7	II	17	40	10YR 5/6 yellowish brown	sandy clay	
1	B-8	I	0	22	10YR 4/3 brown	silty clay loam	
1	B-8	II	22	40	10YR 5/6 yellowish brown	sandy clay	
1	D-8	I	0	20	10YR 4/3 brown	silt loam	off-set 2m south
1	D-8	II	20	40	10YR 5/6 yellowish brown	silt loam	
1	D-9	I	0	13	10YR 4/3 dark yellowish brown mottled with 10YR 5/6 yellowish brown	silt loam	off-set 2m south
1	D-9	II	13	25	10YR 5/6 yellowish brown mottled with 10YR 4/3 brown	silt clay loam	
1	D-9	III	25	40	10YR 4/3 brown	silt loam	
1	D-9	IV	40	53	10YR 5/6 yellowish brown	silt loam	
1	D-10	I	0	30	10YR 4/3 brown mottled 10YR 5/6	brown with yellowish brown	off-set 2m south
1	D-10	II	30	50	10YR 5/6 yellowish brown	silty clay	
1	B-9	I	0	25	10YR 4/3 brown	silt loam	

Area	STP	Stratum	Opening (cm)	Closing (cm)	Munsell	Texture	Comments
1	B-9	II	25	35	10YR 5/8 brownish yellow	silt loam	
1	B-10	I	0	25	10YR 4/3 brown	silt loam	
1	B-10	II	25	35	10YR 5/8 brownish yellow	silt loam	
1	C-1						Not excavated location in driveway
1	C-2	I	0	16	10YR 4/3 brown	sandy clay loam	
1	C-2	II	16	32	10YR 4/6 dark yellowish brown	loamy sand	
1	C-2	III	32	42	10YR 5/6 yellowish brown	fine silt	
1	C-3						Not excavated location in house
1	C-4	I	0	17	10YR 4/3 brown	sandy clay loam	
1	C-4	II	17	26	10YR 4/6 dark yellowish brown	loamy sand	
1	C-4	III	26	42	10YR 5/6 yellowish brown	fine silt	
1	C-5						Not excavated location in house
1	C-6						Not excavated location in house
1	C-7	I	0	20	10YR 4/4 dark yellowish brown	sandy clay loam	off-set 3m east tree
1	C-7	II	20	38	10YR 5/6 yellowish brown	sandy clay	
1	C-8	I	0	5	10YR 4/3 brown	silt loam	
1	C-8	II	5	30	10YR 5/6 yellowish brown	silt loam	
1	C-9	I	0	10	10YR 4/3 brown	silt loam	

Area	STP	Stratum	Opening (cm)	Closing (cm)	Munsell	Texture	Comments
1	C-9	II	10	47	10YR 5/6 yellowish brown	silt loam	macadam chunks
1	C-10	I	0	20	10YR 4/3 brown	loam	gravels >50%
1	C-10	II	20	30	10YR 4/3 brown	silt loam	wire nail
1	C-10	III	30	45	10YR 5/6 yellowish brown	silt loam	
1	C-8 7m North	I	0	30	10YR 4/3 dark yellowish brown mottled with 10YR 5/6 yellowish brown		judgmental w/in 10ft depression with yarrow; plastic observed; not retained
1	C-8 7m North	II	30	60	7.5YR 5/6 strong brown	sandy clay with mottles of sandy clay loam	
1	C-10.c	I	0	30	10YR 4/3 brown	silt loam	macadam, cinder block, gravels, asbestos tile, glass; not retained
1	C-10.c	II	30	40	10YR 4/3 brown	silt loam	
1	C-10.c	III	40	50	10YR 5/6 yellowish brown	silt loam	
1	C-10.d	I	0	27	10YR 4/4 dark yellowish brown	silt loam	road gravels; macadam, gravels, asbestos tile, glass; not retained
1	C-10.d	II	27	43	10YR 4/3 brown	silt loam	
1	C-10.d	III	43	55	10YR 5/6 yellowish brown	silt loam	
1	C-10-a	I	0	15	10YR 4/4 dark yellowish brown	silt loam	road gravels; macadam, gravels observed; not retained
1	C-10-a	II	15	36	10YR 4/3 brown	silt loam	
1	C-10-a	III	36	47	10YR 5/6 yellowish brown	silt loam	
1	D-1	I	0	25	10YR 4/4 dark yellowish brown	silt loam	

Area	STP	Stratum	Opening (cm)	Closing (cm)	Munsell	Texture	Comments
1	D-1	II	25	38	10YR 5/8 brownish yellow	silt loam	
1	D-2	I	0	22	10YR 4/4 dark yellowish brown	silt loam	
1	D-2	II	22	32	10YR 5/8 brownish yellow	silt loam	
1	D-3	I	0	22	10YR 4/4 dark yellowish brown	silt loam	aluminum observed; not retained
1	D-3	II	22	32	10YR 5/6 yellowish brown	silt loam	
1	D-4	I	0	32	10YR 4/4 dark yellowish brown	silt loam	
1	D-4	II	32	44	10YR 5/6 yellowish brown	silt loam	
1	D-5						Not excavated; paved drive
1	D-6	I	0	31	10YR 4/4 dark yellowish brown	silt loam	
1	D-6	II	31	38	7.5YR 5/6 strong brown	sandy clay loam	
2	A-1	I	0	10	10YR 4/4 dark yellowish brown	silt loam	Modern clear bottle glass; not retained
2	A-1	II	10	25	10YR 4/3 brown	silt loam	
2	A-1	III	25	40	10YR 5/6 yellowish brown	silt loam	
2	A-2	I	0	10	10YR 4/4 dark yellowish brown	silt loam	1 modern vessel glass
2	A-2	II	10	30	10YR 4/3 brown	silt loam	
2	A-2	III	30	40	10YR 5/6 yellowish brown	silt loam	
2	A-3	I	0	10	10YR 4/4 dark yellowish brown	silt loam	
2	A-3	II	10	40	10YR 4/3 brown	silt loam	

Area	STP	Stratum	Opening (cm)	Closing (cm)	Munsell	Texture	Comments
2	A-3	III	40	50	10YR 5/6 yellowish brown	silt loam	
2	A-4	I	0	10	10YR 4/4 dark yellowish brown	silt loam	
2	A-4	II	10	37	10YR 4/3 brown	silt loam	
2	A-4	III	37	45	10YR 5/6 yellowish brown	silt loam	
2	A-5	I	0	7	10YR 4/4 dark yellowish brown	silt loam	
2	A-5	II	7	38	10YR 4/3 brown	silt loam	Root Refusal @ 38cmbs
2	A-6	I	0	5	10YR 4/4 dark yellowish brown	silt loam	
2	A-6	II	5	30	10YR 4/3 brown	silt loam	
2	A-6	III	30	40	10YR 5/6 yellowish brown	silt loam	
2	A-7	I	0	7	10YR 4/4 dark yellowish brown	silt loam	
2	A-7	II	7	40	10YR 4/3 brown	silt loam	
2	A-7	III	40	50	10YR 5/6 yellowish brown	silt loam	
2	A-8	I	0	5	10YR 4/4 dark yellowish brown	silt loam	
2	A-8	II	5	50	10YR 4/3 brown	silt loam	
2	A-8	III	50	57	10YR 5/6 yellowish brown	silt loam	
2	A-9	I	0	5	10YR 4/4 dark yellowish brown	silt loam	
2	A-9	II	5	52	10YR 4/3 brown	silt loam	
2	A-9	III	52	60	10YR 5/6 yellowish brown	silt loam	
2	A-10	I	0	5	10YR 4/4 dark yellowish brown	silt loam	

Area	STP	Stratum	Opening (cm)	Closing (cm)	Munsell	Texture	Comments
2	A-10	II	5	35	10YR 4/3 brown	silt loam	modern bottle glass
2	A-10	III	35	45	10YR 5/6 yellowish brown	silt loam	
2	A-11	I	0	5	10YR 4/4 dark yellowish brown	silt loam	
2	A-11	II	5	23	10YR 4/3 brown mottled with 10YR 5/6 yellowish brown	silt loam	
2	A-11	III	23	35	10YR 4/3 brown	silt loam	
2	A-11	IV	35	45	10YR 5/6 yellowish brown	silt loam	
2	A-12	I	0	10	10YR 4/4 dark yellowish brown	silt loam	window glass observed, auto glass and seal observed on surface - not retained
2	A-12	II	10	25	10YR 4/3 brown	silt loam	
2	A-12	III	25	40	10YR 5/6 yellowish brown	silt loam	
2	A-13	I	0	10	10YR 4/4 dark yellowish brown	silt loam	
2	A-13	II	10	40	10YR 4/3 brown	silt loam	window glass
2	A-13	III	40	56	10YR 6/2 light gray with mineral staining	silt loam	
2	A-14	I	0	10	10YR 4/4 dark yellowish brown	silt loam	
2	A-14	II	10	30	10YR 4/3 brown	silt loam	
2	A-14	III	30	45	10YR 5/8 brownish yellow	silt loam	
2	A-15	I	0	10	10YR 4/4 dark yellowish brown	silt loam	
2	A-15	II	10	25	10YR 4/3 brown	silt loam	
2	A-15	III	25	34	10YR 5/6 yellowish brown	silt loam	

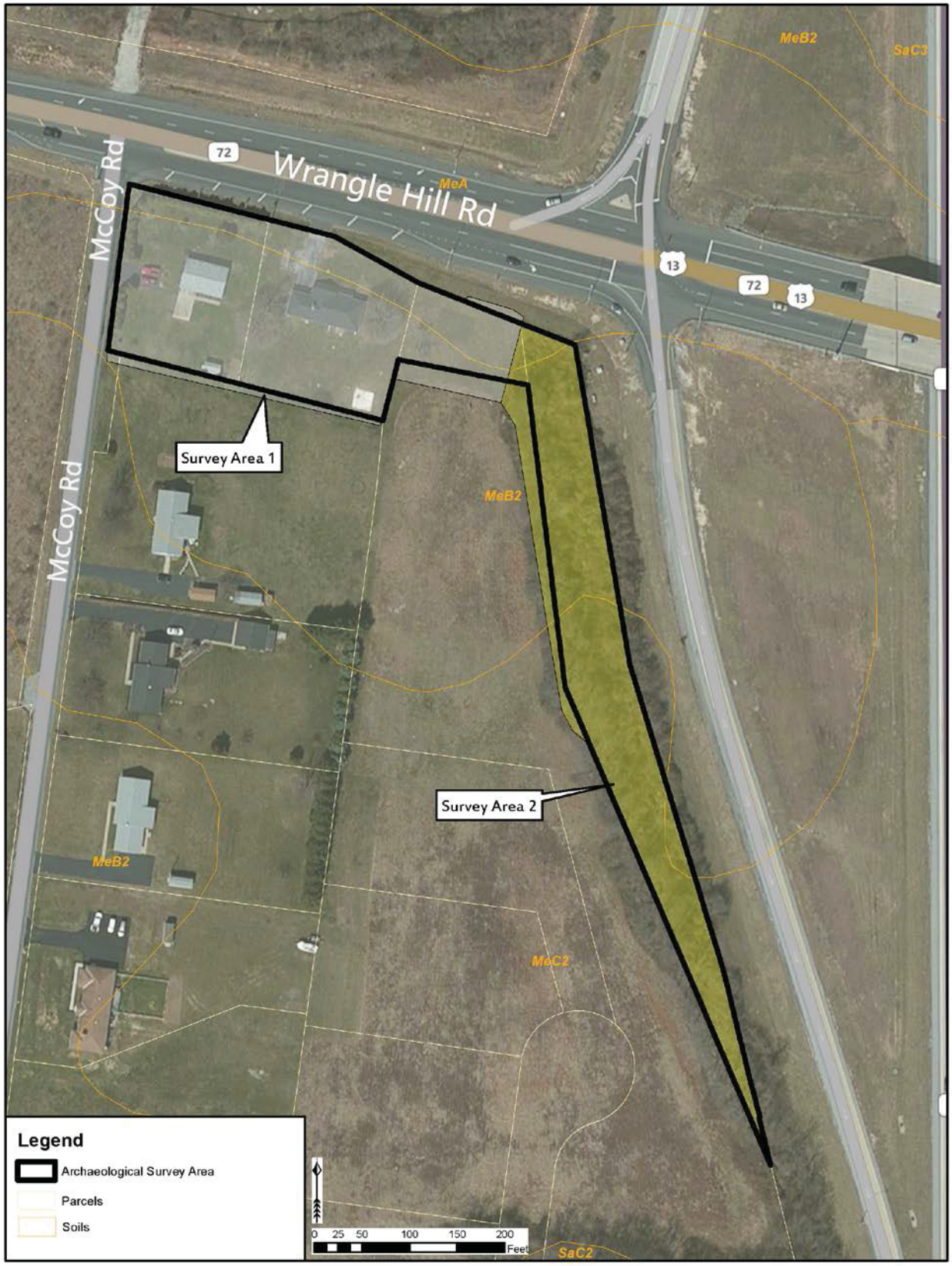
Area	STP	Stratum	Opening (cm)	Closing (cm)	Munsell	Texture	Comments
2	A-16	I	0	10	10YR 4/4 dark yellowish brown	silt loam	
2	A-16	II	10	20	10YR 4/3 brown	silt loam	
2	A-16	III	20	30	10YR 5/6 yellowish brown	silt loam	
2	A-16	IV	30	42	7.5YR 5/6 strong brown	loamy sand	
2	A-17	I	0	10	10YR 4/4 dark yellowish brown	silt loam	
2	A-17	II	10	20	10YR 4/3 brown	silt loam	with gravels
2	A-17	III	20	40	7.5YR 5/6 strong brown	loamy sand	
2	A-18	I	0	12	10YR 4/4 dark yellowish brown	silt loam	
2	A-18	II	12	70	10YR 4/6 dark yellowish brown	loamy sand	10% gravels
2	A-19	I	0	15	10YR 4/4 dark yellowish brown	silt loam	
2	A-19	II	15	30	10YR 5/4 yellowish brown	silt loam	
2	A-19	III	30	55	10YR 4/6 dark yellowish brown	loamy sand	10% gravels
2	A-20	I	0	15	10YR 4/4 dark yellowish brown	silt loam	
2	A-20	II	15	30	10YR 5/4 yellowish brown	silt loam	
2	A-20	III	30	55	10YR 4/6 dark yellowish brown	loamy sand	5% gravels
2	A-10.c	I	0	30	10YR 4/3 brown	silt loam	
2	A-10.c	II	30	40	10YR 5/6 yellowish brown	silt loam	
2	A-10.b	I	0	30	10YR 4/3 brown	silt loam	
2	A-10.b	II	30	40	10YR 5/6 yellowish brown	silt loam	

Area	STP	Stratum	Opening (cm)	Closing (cm)	Munsell	Texture	Comments
2	A-10.d	I	0	10	10YR 4/4 dark yellowish brown	silt loam	
2	A-10.d	II	10	30	10YR 4/3 brown	silt loam	
2	A-10.d	III	30	45	10YR 5/8 brownish yellow	silt loam	
2	A-10.a	I	0	5	10YR 4/4 dark yellowish brown	silt loam	
2	A-10.a	II	5	50	10YR 3/3 dark brown	fine sandy loam	
2	A-10.a	III	50	64	10YR 5/6 yellowish brown	silt loam	
2	B-1	I	0	10	10YR 4/4 dark yellowish brown	silt loam	
2	B-1	II	10	30	10YR 4/3 brown	silt loam	
2	B-1	III	30	40	10YR 5/6 yellowish brown	silt loam	
2	B-2	I	0	5	10YR 4/4 dark yellowish brown	silt loam	
2	B-2	II	5	25	10YR 4/3 brown	silt loam	
2	B-2	III	25	38	10YR 5/8 brownish yellow	silt loam	
2	B-3	I	0	8	10YR 4/4 dark yellowish brown	silt loam	
2	B-3	II	8	28	10YR 4/3 brown	silt clay loam	
2	B-3	III	28	38	10YR 5/8 brownish yellow	silt clay loam	
2	B-4	I	0	5	10YR 4/4 dark yellowish brown	silt loam	
2	B-4	II	5	25	10YR 4/3 brown	silt clay loam	
2	B-4	III	25	35	10YR 5/8 brownish yellow	silt clay loam	

Area	STP	Stratum	Opening (cm)	Closing (cm)	Munsell	Texture	Comments
2	B-5	I	0	5	10YR 4/4 dark yellowish brown	silt loam	
2	B-5	II	5	18	10YR 4/3 brown	silt clay loam	
2	B-5	III	18	28	10YR 5/8 brownish yellow	silt clay loam	
2	B-6	I	0	8	10YR 4/4 dark yellowish brown	silt loam	
2	B-6	II	8	18	10YR 4/3 brown	silt clay loam	
2	B-6	III	18	28	10YR 5/8 brownish yellow	silt clay loam	
2	B-7	I	0	10	10YR 4/4 dark yellowish brown	silt loam	
2	B-7	II	10	30	10YR 4/3 brown	silt loam	
2	B-7	III	30	40	10YR 5/8 brownish yellow	silt loam	
2	B-8	I	0	10	10YR 4/4 dark yellowish brown	silt loam	
2	B-8	II	10	30	10YR 4/3 brown	silt loam	
2	B-8	III	30	40	10YR 5/6 yellowish brown	silt loam	
2	B-9	I	0	15	10YR 4/4 dark yellowish brown	silt loam	
2	B-9	II	10	40	10YR 4/3 brown	silt loam	
2	B-9	III	30	50	10YR 5/6 yellowish brown	silt loam	
2	B-10	I	0	10	10YR 4/4 dark yellowish brown	silt loam	
2	B-10	II	10	27	10YR 4/3 brown	silt loam	
2	B-10	III	27	40	10YR 5/6 yellowish brown	silt loam	
2	B-11	I	0	10	10YR 4/4 dark yellowish brown	silt loam	

Area	STP	Stratum	Opening (cm)	Closing (cm)	Munsell	Texture	Comments
2	B-11	II	10	27	10YR 4/3 brown	silt loam	
2	B-11	III	27	40	10YR 5/6 yellowish brown	silt loam	

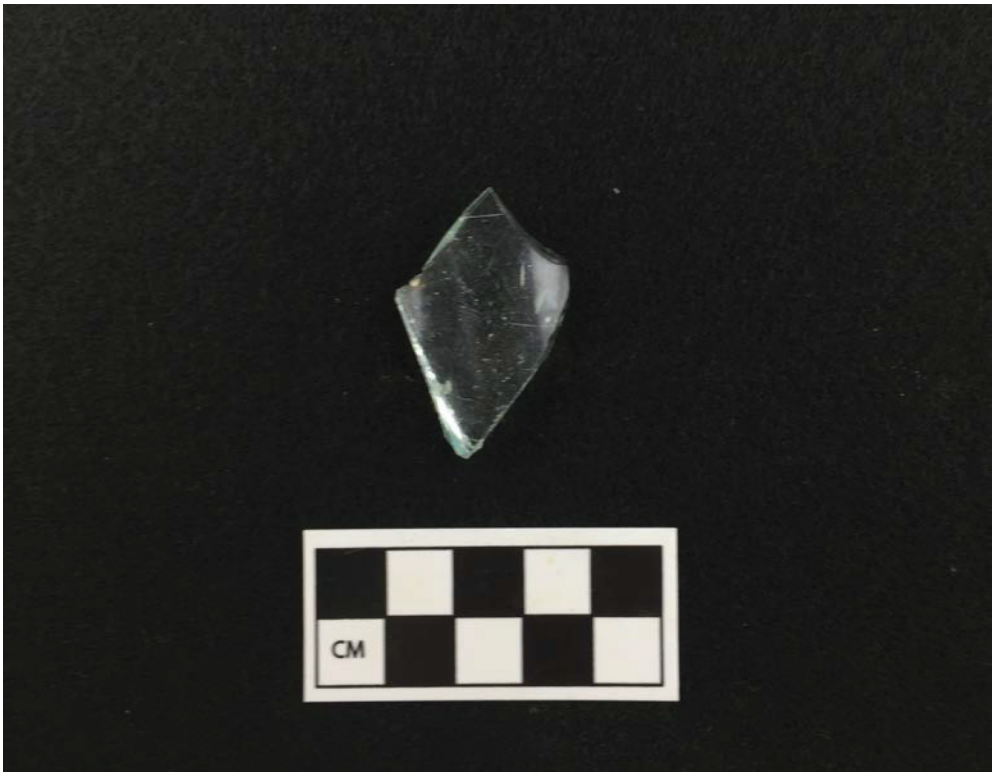
g. Soil Survey Map



h. Discarded Artifacts

Discarded Artifacts from Survey Area 1, STP A-1. Left to Right: Modern Bottle Glass, colorless; Redware; Whiteware, undecorated.

Wire Nail Recovered from Survey Area 1, STP C-10



Modern Bottle Glass Recovered from Survey Area 2, STP A-10